

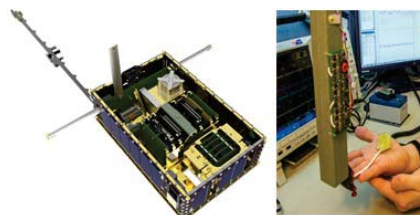
A complete Cubesat Magnetometer System Project

Center Independent Research & Developments: GSFC IRAD Program



ABSTRACT

The objective of this work is to provide the center with a fully tested, flexible, low cost, miniaturized science magnetometer system applicable to small satellite programs, like cubesats, and to rides of opportunity that do not lend themselves to the high integration costs a science magnetometer on a boom necessitates.



Dellinger cubesat and magnetometer testing setup

ANTICIPATED BENEFITS

To NASA unfunded & planned missions:

Dellinger Cubesat mission

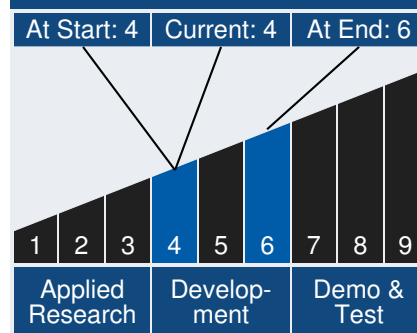
DETAILED DESCRIPTION

Traditionally, including a science-grade magnetometer in a mission necessitates very costly integration and design (sensor on long boom) and imposes magnetic cleanliness restrictions on all components of the bus and payload. The proposed system avoids such restrictions and costs.

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Technology Maturity



Management Team

Program Executive:

- Peter Hughes

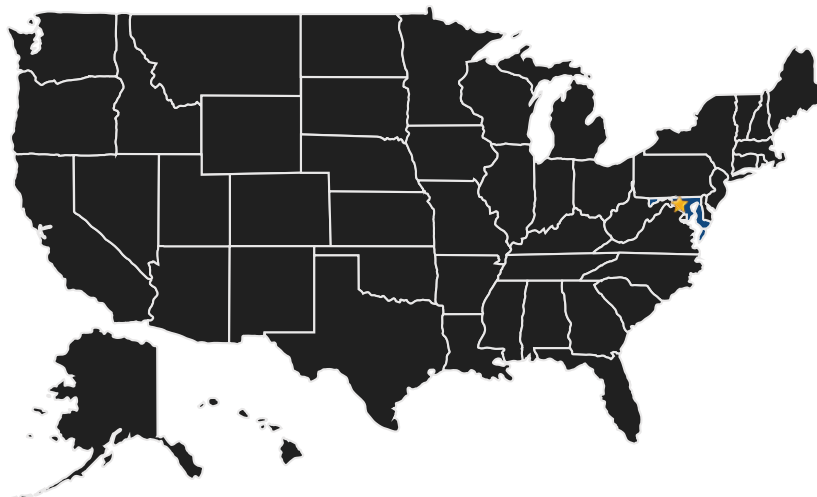
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U.S. LOCATIONS WORKING ON THIS PROJECT



■ U.S. States
With Work

★ **Lead Center:**
Goddard Space Flight Center

● **Supporting Centers:**

- Goddard Space Flight Center

Management Team *(cont.)*

Program Manager:

- Timothy Gehringer

Project Manager:

- Nikolaos Paschalidis

Principal Investigator:

- Eftyhia Zesta

Technology Areas

Other Technology Areas:

- Science Instruments,
Observatories & Sensor
Systems (TA08)

DETAILS FOR TECHNOLOGY 1

Technology Title

A complete Cubesat Magnetometer System

Technology Description

This technology is categorized as software language for unmanned spaceflight

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Capabilities Provided

To acquire science-grade magnetic field data at low cost without stringent magnetic cleanliness of the bus.

Potential Applications

Cubesats are the first obvious application. Also any kind of small Satellite or general ride of opportunity.